KNOWLEDGE MANAGEMENT PRACTICES AND PERFORMANCE IN NIGERIAN UNIVERSITIES

John Omogeafe, Ohiorenoya PhD

Ohimai Friday, Eboreime PhD

Department of Business Administration, Benson Idahosa University, Nigeria

Abstract

The paper investigated if there is a relationship between knowledge management and performance and if there is variation in knowledge management effectiveness among Nigerian universities. The paper examined approved universities that have gone through Nigerian Universities Commission (NUC) accreditation process in Nigeria and selected six (6) universities which were classified into two federal universities, two state universities and two private universities based on ownership and age criteria. Random sampling and convenience sampling were used to select the various universities. These six universities had staff strength of 13,822. universities. These six universities had staff strength of 13,822. Questionnaires were then distributed to 389 respondents on the basis of the staff strength of each university. Correlations, and regression analysis and Analysis of Variance (ANOVA) were used to analyze the data. It was found that: variations in knowledge management practices led to differences in organizational performance; and knowledge management was effective in all universities except Benson Idahosa University; The paper recommends provision of communication facilities, full scale knowledge audit, provision of library facilities, massive training of universities' current workforce and continuous upgrading of technology continuous upgrading of technology.

Keywords: Knowledge Management, Organizational Performance, Knowledge Management Effectiveness

Introduction

It is no gainsaying the fact that knowledge management is a veritable tool for the improvement of services and process and for growth and productivity. Evidence shows that it is of central importance to organizations as it represents a major source of competitive advantage for organizations (De Long & Fahey, 2000). Moreover sustainable competitive advantage and innovation hinges on effective management of organizations' vast and varied knowledge assets (Kulkarni & St. Louis, 2003). The universities as

knowledge based institutions are expected to manage knowledge for sustainable competitive advantage, growth and innovation in Nigeria. The extent to which the universities have realized this expectation is yet to be established. If as generally believed that the quality of students being produced yearly is on the decline is anything to go bye, then the performance of the universities is also on the decline. Different reasons have been given for this sordid performance in the educational sector such as quality of teachers because they constitute the direct labour, incessant strike, sexual harassment and cultism to mention a few. As knowledge based institution, managing knowledge is very critical.

The university education is bedeviled with many challenges. Most universities are not investing much on R&D (Akpochafo, 2009) and investment in research by government is irregular (Igwe,1990 and Donwa, 2006). This research fund is irregular and inadequate and to make it worse it is difficult to access (Olayiwola,2010) Some universities may not have embraced knowledge sharing and integrated it into their corporate culture since ICT which is a major tool of knowledge sharing (Krubu and Osawaru,2011) is not adequately funded. Coaching and mentoring programmes, improving document and records management, facilitating skills transfer from retiring staff, and capturing staff knowledge in a documented form may not be sufficiently done. Improving policies and procedures, implementing new learning approaches including e-learning and enhancing the corporate staff directory are also absent in some universities but essential. but essential.

but essential.

Others may not have well designed knowledge information systems in place. Many universities may not have the resources to acquire advanced information technologies, such as the Internet, intranets, extranets, browsers, data warehouse, data mining techniques, and software agents since government funding is inadequate(Donwa,2006, Krubu and Osawaru, 2011).networking and access to online resources is impeded by:

• The prohibitive cost of bandwidth and/or appropriate power caused by limited infrastructure, compounded by failure to share information and aggregate our various needs and negotiate as a group to benefit from economy of scale

• Policy issues, including the lack of education rates

• The lack of adequate peering arrangements

• Inefficient utilization of the available bandwidth, compounded by inadequate and unstable power supply (NUC, 2008).

Collaboration and sharing of knowledge as well as the adequacy of knowledge management infrastructure pose different challenges to different universities. Investment on R& D and leadership commitment to R&D are

different among organizations. Nigerian universities have not cultivated the culture of entering into strategic alliances.

Most university libraries are not well equipped for storing knowledge. They do not have recent and up to date books and journals and elibraries are not developed. The application of ICT resources in the Nigerian university libraries is seriously affected by inadequate funding by the government and some owners of the private Universities as well as epileptic power supply (Krubu and Osawaru, 2011). Hence knowledge storing and dissemination is hindered. dissemination is hindered.

Knowledge is acquired through education, on-job- training, mentoring, seminars, conferences and workshops. Universities are citadel of learning. There is no doubt that academic and non- academic staff have acquired knowledge overtime. The problem is that the knowledge may not be properly managed. Most of the universities do not have knowledge management programs in place because of inadequate planning and so control becomes very difficult. The net result is that a lot of staff retires, and sometimes there is nobody to take over and so the universities have to advertise for top cadre jobs. The universities lose their knowledge —a valuable asset-through such retirement.

Knowledge management practices may differ from one university to

Knowledge management practices may differ from one university to the other and differences in knowledge management practices may lead to differences in the performance of various universities. The effectiveness of knowledge management practices may vary from one university to another.

The purpose of this paper is to determine the relationship between knowledge management practices and performance as well as the effectiveness of knowledge management practices in the Nigerian

Universities

The paper is divided into six sections. Section 1 is the introduction, section 2 is knowledge management and performance, section 3 is hypotheses, section 4 is methodology, Section5 is analysis and presentation of findings, Section 6 is summary of findings, Section 7 is recommendations and finally section 8 is conclusion.

Knowledge management and performance

Knowledge management which is the process by which "organization generates wealth from its intellectual or knowledge-based assets" (Bukowitz and Williams,1999) has far reaching effects on performance. Firms having quality and abundance of knowledge assets could reap increasing returns from creating additional unit of knowledge (Arthur, 1996) and continuing advantages (Zolingen et al, 2001). Knowledge will keep appreciating when a person shares that knowledge he has and when he transfers it he does not lose it (Syed-Ikhsan and Rowland, 2004).

The ability to leverage knowledge internally is critical in building competitive advantage. Caloghirou, Kastelli, and Tsakanikas,(2004) posit that a relationship exists between strategic alliance and the extent of innovation. Knowledge assets are a potential for action embedded in individuals, groups or socio- physical systems with future prospects of value creation (Malhotra, 2004).

creation (Malhotra, 2004).

Halawi, Aronson and McCarthy (2005) suggest that sustainable competitive advantage depends on building and exploiting core competencies and having strategic assets which are rare, valuable, nonsubstitutable and imperfectly imitable. Knowledge asset is the single most competitive asset that a firm has and constitutes a pool of hard-to-copy resources and capabilities (Conner, 1991). Knowledge sharing may lead to higher organizational performance (Du, Ai. and Ren, 2007) especially when knowledge sharing capabilities are combined with organizational resources (Widen-Wulff and Suomi, 2007). Tacit knowledge sharing is the best tool for SME in enhancing competence and organizational performance (Ngah and Ibrahim, 2009). Lev(2001) posits that intangible assets such as spending on R&D, Internet and Web applications, human resources, and customer acquisition significantly influence the performance of Companies. There is agreement both from the academic community as well as from the practitioners' community, that Knowledge Management Systems (KMS) do have a positive impact on the performance of the organizations (Robles-Flores, 2004).

Flores, 2004).

Wu and Wang (2006) find in their study that system quality and knowledge or information quality have a significantly positive influence on user satisfaction. Also user satisfaction and perceived KMS benefits have a direct effect on KMS use. In the KMS context, they find that user attitude is affected by beliefs about system quality and knowledge or information quality, which then affect KMS use. Users' beliefs about the KMS quality shape their attitude and this affects their KMS use. They further find that system quality, knowledge or information quality, and perceived benefits have a significantly positive influence on user satisfaction and knowledge management system (KMS) must be of high quality, high knowledge or information quality in order to provide substantial benefits. However they do not find the system quality of the KMS to have a significantly direct influence on user perceived benefits. Firms that adopt KMS significantly reduce administrative costs and improve productivity in the second year after adopting KMS and gaining a competitive advantage over non-adopters (Kuoching, 2006)

Knowledge is the heart and soul of organizational performance and facilitate the realization of the value of human capital (Davidson and Voss, 2002). Chin-Loy and Mujtaba (2007) and Ohiorenoya (2010) found that

there are strong positive correlations between knowledge management and organizational performance (innovation, competitive advantage and growth). Chang and Lee (2007) using canonical correlation found in their paper that knowledge storage, knowledge acquisition, knowledge selection and knowledge diffusion have positive effects on technical innovation. These are significantly correlated to organizational innovation (both technical and administrative innovation). Chang and Lee (2007) conclude that knowledge management causes significant influence on business management performance and competitive edges.

Kremp and Mairesse (2003) have found that knowledge management have positive effects on labour Productivity. Khalifa and Liu (2003) acknowledge that knowledge management infrastructure and knowledge management processes have significant effects on knowledge management success and that IT impact on knowledge management success is not direct but mediated through knowledge management process. Leadership, culture and strategy influence knowledge management infrastructure.

Keramati and Azadeh (2007) believe that factors responsible for commitment to knowledge management success are knowledge sharing, knowledge creation and knowledge transfer. Penrose (1995) argues that the ability of the firm to create knowledge helps to explain the firm's ability to innovate and grow. Strategic alliance leads to better firm performance.

KM strategies such as effective acquisition and utilization of new knowledge are a source of flexibility and competitive advantage and hence associated with organizational performance and indeed may be the most important aspect of innovation process influencing the performance of small firms (Uhlaneret al, 2007).

Market research and use of networks for knowledge exchange are

firms (Uhlaner*et al*, 2007).

firms (Uhlaner*et al*, 2007).

Market research and use of networks for knowledge exchange are linked to higher sales turnover growth. Cooperation with other firms for renewal is found to be positively related among medium scale firms. However, throughput strategies such as sharing, codification of knowledge, firm- provided training and quality certificates have no positive effects just in the same manner output strategies: patents, new products or services and improvement of internal processes do not have positive effects on performance. KM input strategies are found to be clearly better predictors of sales turnover. Research evidence suggests that innovation is positively related to rapid sales growth within small firms (Storey,1994) and that there is a significant positive relationship between marketing research and development and sales growth (Heunks,1998). A positive relationship also exists between new product introduction and re-designed products and total sales growth (Hall and Bagchi-Sen, 2000). Non innovators are more prevalent in declining, stable and low (to average) growth firms while

innovators exceed non- innovators in the supper- growth category (Uhlaneret al, 2007).

Hypotheses

Three hypotheses were formulated as follows:

H1_{0:} :Knowledge management practices do not lead to differences in the performance of the Nigerian Universities

H2_o: Variations in knowledge management practices do not lead to differences in the performance of Nigerian universities

H3_o: Knowledge Management effectiveness does not vary among

Nigerian universities

Methodology

This study was purely survey using questionnaire as the main instrument for data collection. it was designed to examine how knowledge management practices relate to organizational outcomes and to determine if knowledge management practices were effective in the universities under study.

The population (adjudged to be knowledge organizations) consisted of all approved universities that have gone through NUC accreditation process in Nigeria. These universities were divided into six geopolitical zones: North-East, North-West, North-Central, South-South, South-East and South-West of Nigeria. We selected South-South Geopolitical zone of Nigeria as our sample frame. There were 15 universities in this zone. The universities with their respective age of establishment are as shown in the table3.1

Older universities (based on the year of establishment) were chosen and therefore represented in the sample. These universities were classified into Federal, State and Private universities on the basis of ownership. Two into Federal, State and Private universities on the basis of ownership. Two universities were chosen from each of the ownership classification, using year of establishment. University of Benin, Benin City was selected based on age criterion while University of Port Harcourt, Port Harcourt was chosen using random sampling technique. In the case of state universities, we selected Ambrose Alli University, Ekpoma and Delta State University, Abraka, because we could not find a reliable contact person in River State University of Science and Technology, Port Harcourt. Igbinedion University, Okada, and Benson Idahosa University, Benin City were chosen on the basis of age. These six universities were adjudged to be knowledge organizations. This was done in order to take advantage of experience curve and to ensure that universities studied have developed their knowledge management programs programs.

Table 1 List of Approved Universities In South-South, Zone, Nigeria*

				UNIVERSITIES				
S/N	Federal	Year	S/N	State	Year	S/N	Private	Year
1	University of Benin, Benin City	1970	1	Rivers State University of Science and Technology, Port- Harcourt	1979	1	Igbinedion University Okada	1999
2	University of Calabar, Calabar,	1975	2	Ambrose Alli University, Ekpoma	1980	2	Benson Idahosa University, Benin City	2002
3	University of Port Harcourt, Port – Harcourt	1975	3	Delta State University, Abraka	1992	3	Novena University Ogume	2005
4	University of Uyo, Uyo,	1991	4	Niger -Delta University, Yenegoa	2000	4	Western Delta University, Oghara	2007
5	Federal University of Petroleum Resources, Effurun	2007	5	Cross Rivers State of Technology, Calabar	2004			
			6	AkwaIbom State University of Technology, Uyo	2005			

*Extracted from the List of Approved Universities in Nigeria Source: Results of 2008 Accreditation Exercises NUC Monday Bulletin: a Publication of the Office of the Executive Secretary Vol. 4 No11 (2009)

Each university was divided into academic arm and non-academic arm. The academic arm of the universities consisted of faculty of Arts, education, science, social science, management, engineering, pharmacy, dentistry, school of medicine and the library and the non-academic arm consisted of the Vice- chancellor's office, the registry and the bursary and works department of the universities although these vary in nomenclature from university to university.

The non-academic arm of each university was stratified into top management, middle management, supervisory management, technical and support staff in order to ensure that respondents cut across the different strata of the organization. The academic arm was stratified into professors, senior lecturers, lecturers and the administrative support staff. This made the sample to be representative of management as well as took cognizance of the non-managerial grades.

Table 2: The Population of Staff in Each of the Selected Nigerian Universities

University of Benin, Benin City	4,710
University of Port Harcourt, Port Harcourt	4,023
Ambrose Alli University, Ekpoma	2,148
Delta State University, Abraka	1,980
Igbinedion University, Okada	586
Benson Idahosa University, Benin, Benin City	<u>375</u>
Total	13,822*

*Population is as at March 2011 Source: Fieldwork(2011)

In determining the sample size of this study we applied the statistical formula for selecting from a finite population as propounded by Yamane (1967). Therefore a total number of three hundred and eighty-nine (389) respondents were used for this study. After the sample size has been determined, this value was distributed proportionately to the six universities based on the proportion of the staff strength of each university using Kumar (1976) proportional allocation formula

Measurement of Variables

Knowledge management was measured with one scale which is the sum of the weights attached to each of the descriptive statements for each knowledge management process. Thus all the 24 descriptive statements were summed to be the value of knowledge management. Each of the six knowledge management process had 4 descriptive statements. These were weighted and the sum of weights represented each of the processes. Performance measures three dimensions-competitive advantages, innovation and growth.

Variables Specification

For this study, knowledge management (KM) was disaggregated into six components: creating knowledge (CK), capturing knowledge (CKN), organizing knowledge (OK), storing knowledge (SK), disseminating knowledge (DK), and applying knowledge (AK). Organizational performance was also disaggregated into competitive advantage (COMP), innovation (INNOV.) and growth (GRWTH),

Analysis and presentation of findings Correlation between Knowledge Management and Performance

Table3 shows the correlation between knowledge management and each measure of performance. The result showed that knowledge management as a composite had high positive correlation with aggregate performance and even all the measures of performance (innovation, competitive advantage and growth). The correlation between KM and

aggregate performance, innovation, competitive advantage and growth was high. When the different KM practices were considered, similar results were found- high positive correlation between CK, AK and CKN and performance and a moderate correlation between DK and SK and OK and performance. and a moderate correlation between DK and SK and OK and performance. However when the components of knowledge management were considered singly with components of performance, a different pattern of relationship became evident. Creating Knowledge (CK) was moderately correlated with competitive advantage and innovation and had high positive relationship with growth. Capturing knowledge (CKN) had high positive correlation with innovation, competitive advantage and growth. Applying knowledge (AK) had high positive correlation with competitive advantage but moderate correlation with innovation and growth. Organizing Knowledge (OK) had high positive relationship with growth, moderate relationship with innovation and competitive advantage. Storing Knowledge (SK) was moderately positively correlated with all the measures of performance. Disseminating Knowledge (DK) had moderate positive correlation with innovation, competitive advantage and growth.

Table3: Correlation Matrix

Table3: Correlation Matrix

	AVG	CK	CKN	OK	SK	DK	AK	INNOV	GRWTH	comp
	KM									_
AVG.	1									
KM										
CK	0.90	1								
CKN	0.78	0.776	1							
OK	0.81	0.578	0.687	1						
SK	0.72	0.495	0.696	0.559	1					
DK	0.85	0.509	0.544	0.419	0.522	1				
AK	0.76	0.670	0.694	0.456	0.662	0.621	1			
INNOV	0.64	0.572	0.608	0.410	0.496	0.520	0.517	1		
GRWT	0.70	0.653	0.658	0.620	0.472	0.486	0.547	0.646	1	
Н										
COMP	0.67	0.579	0.607	0.481	0.522	0.442	0.636	0.704	0.591	1

Source: Ohiorenoya (2013)

Relationships between Knowledge Management and Performance

Table 4 shows the relationship between knowledge management and performance. Overall knowledge management had a highly significant positive relationship with performance with a t-stat of 105.35 and p=0.000. KM accounted for 54% of the total performance (R²=0.54). When we disaggregated performance into innovation, competitive advantage and growth it was found that Knowledge management was also positively related to innovation, competitive advantage and growth. The individual measures of knowledge management revealed that disseminating knowledge (DK), storing knowledge (SK), capturing knowledge (CKN),and creating

knowledge (CK) were positively related with innovation. Applying knowledge (AK) and organizing knowledge (OK) were not positively related to innovation. The factors put together made a 38% contribution to innovation. The F-Statistic of 42.06 was high.

Table 4:Relationship between Knowledge Management and Performance

Knowledg	Organization performance											
e	INNOV			GROWTH			COMPETITIVE			OVERALL		
Manageme							ADVANTAGE			PERFORMANCE		
nt	t-stat	p	Beta	t-stat	p	Beta	t-stat	p	Beta	t-stat	p	Beta
CK	4.318*	0.00	0.23	4.87*	0.000	0.16	3.29*	0.00	0.178	5.15*	0.00	0.578
		0	2			7		1			0	
CKN	2.697*	0.00	0.16	2.32*	0.021	0.08	1.398	0.16	0.084	2.68*	0.00	0.333
		7	1	*		8		3			8	
OK	0.427	0.67	0.01	6.02*	0.000	0.15	2.14*	0.03		3.08*	0.00	0.259
		0	7			6	*	3	0.087		2	
SK	248*	0.01	0.11	-	0.637	0.01	1.90	0.05	0.087	1.96**	0.05	0.187
		4	3	0.473		4		6			1	
DV	~ <0.'	0.00	0.25	2.024	0.000	0.00	1.10	0.22	0.054	4.00%	0.00	0.207
DK	5.68*	0.00	0.25	3.02*	0.002	0.08	1.19	0.23	0.054	4.22*	0.00	0.397
		0	6		7	78		6			0	
AK	0.592	0.56	0.02	0.241	0.724	0.01	5.61	0.00	0.205	2.000	0.00	0.227
AK	0.583	0.56	0.03	0.341	0.734	0.01 1	5.61	0.00	0.295	3.088	0.00	0.337
\mathbb{R}^2		0.38	1		0.54	1		0.44			0.55	
F -Statistic		42.0			80.31							
1 -Statistic		42.0 6			80.51			53.3			84.7	
KM	82.01*	0.00	0.13	79.48	0.000	0.08	83.41	0.00	0.133	105.35	0.00	0.348
IXIVI	02.01	0.00	0.13	/9.40 *	0.000	0.00	83.41 *	0.00	0.133	*	0.00	0.540
			U								U	
\mathbb{R}^2		0.34			0.49			0.41			0.54	

* 1% level of significance ** 5% level of significance Source: Ohiorenoya (2013)

Knowledge management had significant positive relationship with competitive advantage. Analysis showed t-stat= 83.41 and p=0.000. KM contributed 41.41% to competitive advantage. OK,AK and CK were positively related to competitive advantage. DK, CKN and SK did not have significant positive relationship with competitive advantage. The factors jointly contributed 44% to competitive advantage and their F-Statistic of 53.39 was high showing a significant relationship with competitive advantage.

Knowledge management was positively related to growth. Analysis showed that t- stat=79.48 and p=0.000. KM accounted for 49.18% of growth experienced in the Nigerian Universities. The individual measures of knowledge management revealed that organizing knowledge CK,, CKN,(OK, DK were positively related with growth, applying knowledge

(AK) and storing knowledge (SK) were not significantly positively related to growth. They both accounted for 54% of growth. The high F-Statistic of 80.31 showed that the combined effect was a very high and significant one.

From the foregoing analysis KM was positively related to competitive advantage, innovation and growth which corroborate the findings of Chin-Loy and Mujtaba, 2007) that KM was statistically correlated with organizational benefits of innovation, growth and competitive advantage. competitive advantage.

Table5: Knowledge Management Effectiveness in Nigerian Universities

6 6										
Km in	Performance of Nigerian Universities									
Nigerian	Inno	vation	Gro	wth	Competitive advantage					
Universities										
	F value	р	F value	P	F value	p				
UNIBEN	4.23	0.000	5.24	0.000	2.42	0.001				
UNIPORT	4.23	0.000	5.24	0.000	2.42	0.001				
AAU	3.49	0.000	8.62	0.000	4.51	0.000				
DELSU	4.27	0.000	7.17	0.000	2.60	0.006				
IUO	4.52	0.000	6.92	0.000	3.62	0.001				
BIU	13.84	0.026	5.11	0.103	1.90	0.327				

*5% level of significance Source: Ohiorenoya (2013)

of Knowledge Management Differences the Effectiveness

Practicesamong the Universities

Analysis of the effectiveness of knowledge management revealed that differences exist between the selected universities. There were significant differences between the means of the universities in their effectiveness. There was a highly significant relationship between knowledge management practices and innovation, growth and competitive advantage in University of Benin, Benin City. The case of University of Port Harcourt was similar as there was a highly significant relationship between knowledge management and innovation growth, competitive advantage. These two universities are federal universities implying that knowledge management contributed significantly to innovation, growth, competitive advantage and aggregate performance in Federal Universities.

In the State Universities, Ambrose Alli University and Delta State University, the relationships between knowledge management and innovation, growth and competitive advantage were also highly significant. Knowledge management also contributed significantly to innovation, growth, competitive advantage and aggregate performance in the two State Universities.

Although Igbinedion University Okada showed similar result with Federal and state universities Benson Idahosa University revealed a different pattern. . While there was significant relationship between

knowledge management and innovation, the relationship between knowledge management and competitive advantage as well as knowledge management and growth were not significant. Benson Idahosa University may not be the only private university facing knowledge management challenges. However it is clear from the results that private universities need to wake up to ensure commitment to knowledge management programmes. The low level of effectiveness of knowledge management programmes in some private universities may be due to lack of support from the Federal government and their relatively young age of establishment as well total dependence on school fees and contributions from their owners. from their owners.

Even though the Federal and State Universities are complaining of being seriously underfunded, we believe they enjoy some benefits which are not available to privately owned universities. This places private universities in a disadvantaged position. Since all universities operate in the same environment, political, economic, socio-cultural and technological and produce human resources for the development of the nation's economy, and students in private universities are Nigerians, a level playing ground should be provided for both the private, state and federal universities to innovate, compete and grow.

The research found that KM was effective in University of Benin, Benin City, University of Port Harcourt, Ambrose Alli University, Delta State University and Igbinedion University but was only effective in achieving innovation objective in Benson Idahosa University.

- Summary of Findings

 The following are the findings:

 1. Knowledge management practices led to differences in performance

 2. Variations in knowledge management practices led to differences in organizational performance; Knowledge management (KM) was statistically positively related with overall performance, innovation, growth and competitive advantage.
 - 3. Knowledge management was effective in all universities except Benson Idahosa University; knowledge management practices was significantly related to innovation,, competitive advantage and growth in University of Benin, Benin City, University of Port Harcourt, Ambrose Alli University and Delta State University. This means that by fostering knowledge management programmes in these universities, performance will be significantly improved.

Recommendations

- There should be leadership commitment to ICT to grow and harness knowledge in the universities. Presently there are no ICT facilities in most Nigerian universities. Any university that wants to innovate, compete and grow in a globalized environment can ill-afford to ignore ICT.
- To create awareness and disseminate knowledge in the universities, intercom facilities, telephones, radio communications, e-mail web, fax, personal computers, intranet, internet facilities, journals, well equipped libraries especially e-libraries, laboratories and lecturing facilities should be provided. Universities should make judicious use of Newsletters, Memos and notice boards. Regular meeting between university management and congregation is also important. Sharing knowledge through Communities of Practices (CoPs), identifying and using best practices as well as knowledge harvesting should be encouraged.
- Full scale knowledge audit- finding out what knowledge needs are, what knowledge assets are available and where they are located, knowledge flow in the universities and hindrances to knowledge capturing is very fundamental to effective knowledge management. In addition the universities should know their knowledge strengths and weaknesses and opportunities and threats in order to identify what knowledge management initiatives to pursue (Ohiorenoya, 2010).
- Universities should create strategic alliance with other universities, research institutes, and companies in order to gain new and practical knowledge.
- To ensure continuous and sustainable growth, universities should be involved in continuous upgrading of technology such as ICT, new programmes, new method of lecture delivery and should embrace change.
- Universities should identify and share best practices. Those practices that have improved performance or have been proven to work within and without the universities should be identified and be kept in a database.
- The Federal government should create an enabling environment for knowledge management to thrive. This involves providing infrastructures, financial support for the universities (without discrimination), creating knowledge networks, connecting innovators, research institutes, investors and entrepreneurs and captains of industries as well as encourage mega companies to support research by way of grants. The oil firms' payment of

education tax through Educational Tax Fund (ETF) is in the right direction. This tax payment should not be restricted to oil firms but should involve large scale companies which must of necessity be channeled to research activities in universities. The federal government should allow private universities to benefit from Educational Tax Fund (ETF) and Petroleum Technology Development Fund (PTDF)

Conclusion

Conclusion

The study examined the relationship between knowledge management and performance as well as the effectiveness of knowledge management. The study has also looked at the effectiveness of KM among different universities and has come to the conclusion that knowledge management influences organizational performance of innovation, growth and competitive advantage

Therefore in order to innovate, grow and be competitive, Nigerian universities must as a matter of necessity be able to identify the knowledge management programmes to assist the universities authorities, government and captains of industry and other change agents in designing, initiating, and implementing changes that foster successful knowledge management programmes

In this new era, the knowledge economy, government, public and private organizations as well as the universities must understand knowledge management processes and systems and ensure they are in place. The fact that an organization is effective now does not mean it should rest on it oars but should continuously upgrade its knowledge management infrastructure for continuous growth and competitiveness. competitiveness.

References:

Adler,P and A. Shenhar(1990), "Adapting your technological base: The organizational challenge," Sloan Management Review, Volume 32, no. 1, pp.25-37,

Akpochafo, W.P (2009) "Revitalizing Research in Nigerian universities for national development" *Educational Research and Review* Vol. 4 No5 Pp247-251

Arthur, B. (1996). "Increasing Returns and the New World of Business" Harvard Business Review, 74(4)

Bukowitz, W.R and Williams, R.L (1999) in Keramati, A and AzadehM.A"Exploring the Effects of Top Management's Commitment on Knowledge Management Success in Academia: A Case Study". *Proceedings of World Academy of Science Engineering and Technology* Volume 21 May pp 292-297.

Caloghirou, Y., Kastelli, I. and Tsakanikas, A. (2004) "Internal Capabilities and External Knowledge Sources: Complements or Substitutes for Innovative Performance?" *Technovation*, 24: 29-39

Innovative Performance?" *Technovation*, 24: 29-39
Chang, Su-Chao and Lee, Ming-Shing (2007) "The Effects of Organization Culture and Knowledge Management Mechanisms on Organizational Innovation: An Empirical Study in Taiwan" *The Business Review, Cambridge*, Volume 7 No.1, summer Pp 295-301.
Chin- Loy and Mujtaba, Bahaudin G.(2007) "The Influence of Organizational Culture on the Success of Knowledge Management Practices with North American Companies" *International Business and Economic Research Journal*, March Volume 6 No3 Pp15-28.
Conner, K. R. (1991) "A Historical Comparison of Resource-Based Theory and Five Schools of Thought within Industrial Organization Economics: Do We Have a New Theory of the Firm?" *Journal of Management*, Volume 17, No. 1, pp. 121-154.

No. 1, pp. 121-154.

DavidsonCarl and Philip Voss (2002)Knowledge Management: An Introduction to Creating Competitive Advantage from Intellectual Capital. Auckland, New Zealand Tandem Press

De Jong, J. P.J and Patrick A.M. V.(2004). Determinants of product innovation in small firms: a Comparison across Industries. Zoetermeer, August,

DeLong, D., & Fahey, L. (2000) "Diagnosing Cultural Barriers to Knowledge Management". *Academy of Management Executive*, 14(4), 113-127

Donwa, P.A (2006) "Funding of Academic Research in Nigerian universities" A Paper presented at the UNESCOforum for Higher Education Research and Knowledge Creation November 29- December 1, 2006. Retrieved from http://portal unesco.org/education /fr/files 21 January,2012 Du, Rong, Ai,S.andRen, Y. (2007). Relationship Between Knowledge Sharing And Performance: A Survey, China .Expert Systems with Applications Volume.32 pp.38-46. Halawi L, Aronson J and McCarthy R (2005) "Resource-Based View of Knowledge Management for Competitive Advantage" The Electronic Journal of Knowledge Management Volume 3 Issue 2, pp 75-86 Hall, L.A. and Bagchi-Sen, S. (2002). "A Study of R&D, Innovation, and Business Performance in the Canadian Biotechnology Industry", Technovation Volume22: pp231-244.

Technovation Volume22: pp231-244.
Heunks, F. (1998), "Innovation, Creativity and Success", Small Business

Economics Volume10: pp 263-272

Igwe, B.U.N (1990) Policies and Strategies for Commercialisation of Inventions and Research Results in Nigeria Nigerian Institute of Social and Economic Research, Occasional Paper No 2.

Keramati, A and Azadeh M.A (2007) "Exploring the Effects of Top Management's Commitment on Knowledge Management Success in Academia: A Case Study". *Proceedings of World Academy of Science Engineering and Technology* Volume. 21 May PP292-297.

Khalifa, Mohammed and Liu Vanessa (2003) "Determinants of Successful Knowledge Management Programs" *Electronic Journal on Knowledge Management* Volume.1 issue 2 pp 103 – 112.

Kremp, Elizabeth and Mairesse Jacques (2003) "Knowledge Management, Innovation and Productivity: A Firm Level Exploration Based on the French CIS 3 Data"

CIS 3 Data".

Krubu D.E and Krub D.S.(2011) Toward Sustainable Development:An Assessment of Knowledge Management Initiatives in Nigerian Universities Journal of Sustainable Development in Africa Vol.13 No3 Pp165-177 Kulkarni,Uday and St. Louis, Robert (2003) "Organizational Self Assessment of Knowledge Management Maturity" Ninth Americas

Assessment of Knowledge Management Maturity" Ninth Americas Conference on Information Systems

Kumar, S.R. (1976) A Manual of Sampling Technique, London: Heineman Kuoching, Feng(2006) "Implementation Of Knowledge Management Systems and Firm Performance: An Empirical Investigation" The Journal of Computer Information Systems January

Lev, B. (2001) Intangibles: Management, Measurement, and Reporting.

Brookings Institution Press. Washington DC.

Malhotra, Yogesh and Galetta (2004) "Role of Commitment and Motivation in Knowledge Management Systems Implementation: Theory, Conceptualization and Measurement of Antecedents of Success"

Conceptualization, and Measurement of Antecedents of Success" Proceedings of the 36th Hawaii International C conference on System Sciences, pp1-10

Ngah, Rohana and Ibrahim, Abdul Razak (2009) "Tacit Knowledge Sharing and Organizational Performance": *Malaysian SMEs perspective*Nguyen, Que T hi Nguyet, Philip Neck and Thanh, hai Nguyen(2008) "The Interelationships between Entrepreneurial Culture, Knowledge Management and Competitive Advantage in a Transitional Economy" 17th Biennial Conference of the Asian Studies Association of Australia, Melbourne 1-3 July.

National University Commission (2008) "Workshop on Strategies for ICT Development and

Access to More Affordable Bandwidth for Universities, Research and Higher Educational

Institutions in Nigeria", Association of Vice-Chancellors of Nigerian

Universities (AVCNU) Communique
Oduwaiye,R.O., Owolabi, H.O. and Onasanya, S,A,(2009) "Research Dissemination, Utilization and Commercialization by Academic Staff of a

Nigerian University". A Paper Presented at the 4th Regional Conference of Higher Education Research and Policy Network(HARPNET) Held in Kampala International University, Kampala, Uganda. Ohiorenoya, John Omogeafe (2010). "Knowledge Management and Performance in a Private Corporate Organization: A Case Study of Benson Idahosa University" West African Social and Management Sciences Review Volume 1 No1pp31-43

Ohiorenoya, John Omogeafe (2013) "organization culture types, knowledge management practices and performance in Nigerian Universites" *Phd thesis University of Benin, Benin City*Olayiwola, S. (2010). Alternative Model of Funding for Academic Research in Nigerian Universities. Higher Education Quarterly, 64: 149–160
Penrose, E. (1959). *The theory of the Growth of the Firm*. Oxford University

Press: Oxford.

Robles-Flores, José Antonio (2004) "Knowledge Management Systems and their Impact on Knowledge-Intensive Business Processes" II ColoquioPredoctoralLatinoamericano Puerto Plata, Santo Domingo XXXIX AsambleaAnual de CLADEA Octubre

Storey, J. & Barnett, E.(2000). "Knowledge Management Initiatives Learning from Failure". Journal of Knowledge Management, 4(2), 145-156.

Syed-Ikhsan, Syed Omar Sharifuddin and Rowland, Fytton (2004) "Knowledge Management In A Public Organization: A Study of the Relationship between Organizational Elements and the Performance of Knowledge Transfer" Journal of Knowledge Management, Volume 8 No2 Pp95-111

Uhlaner, L., Stel, A., Meijaard, J.andFolkeringa, M. (2007) "The Relationship between Knowledge Management, Innovation and Firm Performance: Evidence from Dutch SMEs" Zoetermeer, January.

Widen-Wulff, G. and Suomi, R.(2007) "Utilization of Information Resources for Business Success: The Knowledge Sharing Model". *Information Resources Management Journal* 20 (1) pp 46-67

Wu, Jen-Her and Wang, Yu-Min (2006). "Measuring KMS success: A Re-Specification of the DeLone and McLean's Model" *Information & Management* Volume43 pp728–739

Yamane, Taro(1967) *Statistics: An Introductory Analysis* 2nded. New York, Harner and Row

Harper and Row

Zolingen, S.J Van, Streumer J.N and Stooker, M. (2001) "Problems in Knowledge

Management" International Journal of Training and Development, Volume 5:3